Remarks/Arguments

Applicants respectfully request favorable reconsideration of the subject application, particularly in view of the above amendment and the following remarks. There is no additional fee for the amendment as the number of independent claims and the total number of claims remain unchanged.

Applicants have amended Fig. 3 of the drawings to show the valve recited in Claim 13 and described at page 11 of the specification. The valve, designated as element 48, is disposed in the inducer 38 and is moveable, as suggested by the arrows, between an open position as shown in Fig. 3 whereby combustion air disposed in the inducer is able to be exhausted from the convection oven through the vent connected to the bottom of the inducer and a closed position whereby the combustion products are introduced directly into the cooking chamber. Applicants respectfully urge that this amendment incorporates no new subject matter into the application and is fully supported by the application as originally filed.

To be consistent with the amendment to Fig. 3, Applicants have amended the specification to identify the valve as element 48.

Applicants have amended Claims 9 and 16 by adding the limitation of heating means disposed in the blower plenum for directly or indirectly heating the cooking chamber. In accordance with one embodiment, this heating means is in the

form of gas combustion system 12, which includes an inducer and valve for switching between direct and indirect heating of the cooking chamber, discussed beginning at page 9, line 11 of the specification as originally filed and, thus, is fully supported by the application as originally filed. Applicants have also amended Claim 15 to correct an obvious grammatical error.

The drawings have been objected to under 37 CFR 1.83(a) for failing to show every feature of the invention specified in the claims. In particular, the Examiner indicates that the inducer having a valve whereby combustion products are conveyed into the cooking chamber or exhausted from the cooking oven as recited in Claim 13 must be shown in the drawings or the feature canceled from the claims. As previously indicated, Applicants have amended Fig. 3 of the drawings to show the claimed valve. Accordingly, Applicants respectfully urge that this amendment overcomes this objection.

The invention claimed by Applicants is a convection oven comprising a cooking chamber, a blower plenum in communication with the cooking chamber, heating means for directly or indirectly heating the cooking chamber disposed in the blower plenum, an adjustable airflow control surface disposed within the cooking chamber, an actuator suitable for adjusting the adjustable airflow control surface operably connected to the adjustable airflow control surface, and at least one

reversible blower wheel mounted within the blower plenum. In accordance with one particularly preferred embodiment, there are two reversible blower wheels disposed within the blower plenum. By virtue of this arrangement, numerous airflow patterns can be established within the cooking chamber so as to enhance the cooking operation. In addition, in accordance with one embodiment of this invention as recited in Claim 13, the cooking chamber may be directly or indirectly heated.

Also claimed by Applicants is a method for creating multiple airflow patterns within a cooking chamber during a cooking cycle comprising the steps of heating air disposed within the blower plenum, creating a first airflow pattern within the cooking chamber, actuating an adjustable airflow control surface to create a second airflow pattern within the cooking chamber and switching between the first airflow pattern and the second airflow pattern during a baking cycle. For the reasons set forth herein below, Applicants respectfully urge that the prior art relied upon by the Examiner as the basis for rejection of the subject application neither teaches nor suggests the convection oven or the method of the invention claimed by Applicants.

Claims 9, 10 and 16 have been rejected under 35 U.S.C. 102(b) as being anticipated by Brunner, U.S. Patent 4,862,599 (hereinafter "the Brunner patent"). This rejection is respectfully traversed. The Brunner patent teaches a process and apparatus for drying wood comprising a drying chamber (1) having a top limiting wall

(7) and side walls (5). Disposed at a distance from the top limiting wall (7) and extending parallel thereto is a partition wall (8) which extends over the entire depth of the drying chamber but ends at some distance from the two side walls (5), the distance being equal to the width of a space (6). The apparatus further comprises two axial fans disposed in the region between the top limiting wall (7) and the partition (8) as well as adjustable air conducting surfaces (13). Although the invention claimed in the subject application is a convection oven for cooking food, it is the Examiner's position that the term "cooking" and the phrases "during a cooking cycle" and during a baking cycle" are mere statements of intended use and, thus, do not constitute further limitations of the claimed invention. In addition, the Examiner states "If the prior art structure is capable of performing the intended use, then it meets the claim." While not disagreeing with the basic tenet of this statement, Applicants respectfully urge that the apparatus of the Brunner patent *is not* capable of performing the intended use of the invention claimed by Applicants. That is, the apparatus of the Brunner patent is unable to "cook" in the manner of the invention claimed by Applicants because it has no heat source. Rather, it relies strictly upon ambient air for drying. Accordingly, because the apparatus of the Brunner patent contains no heating source and, thus, is unable to cook as required by Applicants' claimed invention, Applicants

respectfully urge that the Brunner patent does not anticipate the invention claimed by Applicants in the manner required by 35 U.S.C. 102(b).

Claim 11 has been rejected under 35 U.S.C. 103(a) as being unpatentable over the Brunner patent. This rejection is respectfully traversed. Applicants' arguments with respect to the Brunner patent as set forth herein above are equally applicable to this rejection and, thus, will not be repeated other than to reiterate that the apparatus of the Brunner patent contains no heating means disposed within a blower plenum for heating the air as claimed by Applicants and no such heating means are taught or suggested by the Brunner patent. The Brunner patent is also relied upon by the Examiner as teaching means for continuously setting the velocity of the drive motors of the axial fans as well as the ability to set the direction of rotation, based upon which the Examiner argues that it would be obvious for the two axial fans to be driven at different speeds as claimed by Applicants. Regarding the ability to set the direction of rotation of the fans, Applicants respectfully urge that such a statement does not necessarily mean that the fans are reversible as required by Applicants' claimed invention. As discussed at Col. 6, lines 46-50, the axial fans are adjustable around a vertical axis 10'. Thus, Applicants respectfully urge that the term "direction of rotation" refers not to the reversibility of the fans, but rather to the direction in which the fans are facing, hence change in the direction of rotation.

Indeed, given the fact that the fans are adjustable around vertical axis 10', Applicants respectfully urge that making the fans reversible as claimed by Applicants would be an unnecessary redundancy since the effect of reversibility of the fans can be achieved by merely rotating the fans around the vertical axis 10'. Given that the combination of elements taught by the Brunner patent would not result in a cooking oven as claimed by Applicants, Applicants respectfully urge that the Brunner patent does not render Applicants' claimed invention obvious in the manner required by 35 U.S.C. 103(a).

Claim 12 has been rejected under 35 U.S.C. 103(a) as being unpatentable over the Brunner patent in view of Meisser et al., U.S. Patent 5,569,402 (hereinafter "the Meisser et al. patent"). This rejection is respectfully traversed. Applicants' arguments with respect to the Brunner patent as set forth herein above are equally applicable to this rejection and, thus, will not be repeated. The Meisser et al. patent teaches an apparatus for heat treating at least one cuboidal magazine for lead frames, which are parallel to a horizontal longitudinal direction of the magazine and are fitted with electronic chips, in at least one box which has a housing with a charging opening which is defined by end edges and can be closed by a door, and in which box at least one fan is arranged for subjecting the lead frames in the magazine to a hot gas. The Meisser et al. patent is relied upon by the Examiner as teaching an

oven comprising two reversible blowers disposed within a plenum whereby the direction of the gas stream may be varied by reversal of the direction of rotation of the fan. However, *the invention claimed by Applicants also requires disposition in the blower plenum of heating means for heating the cooking chamber, a limitation, which Applicants respectfully urge is neither taught nor suggested by either the Brunner patent nor the Meisser et al. patent.* Indeed, as clearly shown in Figs. 2 and 3 of the Meisser et al. patent, the only heating means present, namely heating coil (8), is disposed external to the area of the apparatus identified by the Examiner as blower plenum (35). Accordingly, Applicants respectfully urge that the Brunner patent and the Meisser et al. patent, alone or in combination, do not render the invention claimed by Applicants obvious in the manner required by 35 U.S.C. 103(a).

Claims 13 and 14 have been rejected under 35 U.S.C. 103(a) as being unpatentable over UK Patent Application GB 2 215 177 A (hereinafter "the UK patent application") in view of Cook, U.S. Patent Re. 28226 (hereinafter "the Cook '226 patent") and the Brunner patent. This rejection is respectfully traversed. The UK patent application teaches a gas convection oven having an insulated oven cavity (1) *in which is disposed* a reversible, circulating fan (2) surrounded by a heater coil (4), one end of which is provided with a suction fan (5) exhausting outside the oven cavity (Page 2, line 16 to Page 3, line 12 and Fig. 1). A burner (10) drawing air from outside

the oven cavity is disposed at the other end of the heater coil. The suction fan draws the combustion products from the burner through the heater coil and heat is transferred from the heater coil to the air entering the oven cavity by virtue of the circulating fan. The Examiner suggests that all of the elements of the invention claimed by Applicants are taught by the UK patent application with the exception of a moveable valve in the inducer. Applicants respectfully disagree.

Firstly, in contrast to the invention claimed by Applicants in which the reversible blowers are disposed in a blower plenum separate and apart from the cooking chamber, the UK patent application teaches disposition of the circulating fan *within the oven cavity* (Page 2, lines 16-20).

Secondly, the Examiner identifies element 15 of the UK patent application as a reversible blower. However, the UK patent application, at page 4, lines 7-8 identifies *element 15 as a solenoid valve*. The Examiner identifies element 5 of the UK patent application as a blower header. However, the UK patent application, at page 3, lines 6-9, identifies *element 5 as a suction fan*. Applicants respectfully urge that no blower header is, in fact, taught or suggested by the UK patent application since there is but a single heater coil (4) with an outlet in fluid communication with a suction fan and a *header is an apparatus which collects fluid*

from multiple fluid outlets and enables free communication between the multiple outlets.

The Examiner acknowledges that the UK patent application does not disclose a moveable valve in an inducer as claimed by Applicants, but rather relies upon the Cook '226 patent for this teaching. The Cook '226 patent is a reissue of the previously discussed Cook '352 patent and, as such, teaches a reversible, heated air circulation system that includes a reversible, power-operated air mover located proximate a heater on a platform above the drying chamber of a dryer. The air mover, in the form of fan (24), is disposed between two heating coils (25), which heating coils carry steam or hot water (Col. 3, lines 4-6). Thus, contrary to the convection oven of the invention claimed by Applicants in which the cooking chamber may be directly heated by admission of the combustion products into the cooking chamber or indirectly heated by exhausting the combustion products from the convection oven, the drying chamber of the Cook '352 and Cook '226 patents is indirectly heated and *no means are provided whereby the drying chamber could be directly heated, nor is there an inducer having a moveable valve whereby the combustion products from a combustion system are switchable between flowing into the drying chamber (direct heating) and being exhausted to the atmosphere (indirect heating) as required by the invention claimed by Applicants.* The Examiner has

indicated that, based upon the teachings of the UK patent application and the Cook '226 patent, it would be obvious to one of ordinary skill in the art to modify the *alleged* inducer (15, 5) of the UK patent application to include a valve in view of the teaching of the Cook '226 patent for the purpose of controlling gases exiting the oven space. Applicants respectfully disagree.

Applicants note that *the inducer of the invention claimed by Applicants is not employed for the purpose of controlling the exiting of gases from the oven space* as indicated by the Examiner. Rather, *the inducer is employed for the purpose of switching the flow of combustion products generated by the combustion system so as to render the claimed convection oven as direct-heated or indirect-heated.* No such possibility exists in the apparatus resulting from the combination of the teachings of the UK patent application and the Cook '226 patent. In addition, the introduction of a valve into the "inducer", identified by the Examiner as elements 15 and 5, which is moveable between an open and closed position as claimed by Applicants, would merely have the effect of stopping the flow of air through the heater coil (4). Accordingly, Applicants respectfully urge that incorporation of a moveable valve as claimed by Applicants into the element of the UK patent application identified by the Examiner as an inducer would not result in the apparatus of the invention claimed by Applicants.

The Brunner patent is relied upon by the Examiner as discussed herein above. Applicants' arguments with respect to the Brunner patent as set forth herein above are equally applicable to this rejection and, thus, will not be repeated. Accordingly, Applicants respectfully urge that the UK patent application, the Cook '226 patent and the Brunner patent, alone or in combination, do not render Applicants' claimed invention obvious in the manner required by 35 U.S.C. 103(a).

Claim 15 has been rejected under 35 U.S.C. 103(a) as being unpatentable over the UK patent application in view of the Cook '226 patent and the Brunner patent as applied to Claim 13, and further in view of Murray, U.S. Patent 2,617,203. This rejection is respectfully traversed. Applicants' arguments with respect to the UK patent application, the Cook '226 patent and the Brunner patent as set forth herein above are equally applicable to this rejection and, thus, will not be repeated. The Murray patent, which teaches a clothes dryer, is relied upon by the Examiner as teaching the use of a plurality of heat exchange tubes (63) wherein each tube is provided with internal baffles (64) as a heat source. Applicants respectfully urge that *the Murray patent neither teaches nor suggests such an arrangement* as stated by the Examiner. Rather, the Murray patent teaches *a heat exchanger E* comprising a rectangular shell (63) provided with *a plurality of longitudinal tubes (64)* through which the air is blown by fan 22, the hot gaseous products of combustion

from burner (62) passing upwardly through the central portion of the shell (63), around and between the tubes (64) disposed between baffles (65), the hot gases then passing around and down outside baffles (65), around and between the remaining tubes (64) (Col. 6, lines 7-16). Applicants respectfully urge that the Murray patent neither teaches nor suggests the disposition of baffles *within the heat exchange tubes*, as required by Applicants' claimed invention. Accordingly, Applicants respectfully urge that, lacking such a teaching, the combination of the teachings of the UK patent application, the Cook '226 patent, the Brunner patent and the Murray patent would not result in the invention claimed by Applicants and, thus, does not render Applicants' claimed invention obvious in the manner required by 35 U.S.C. 103(a).

Conclusion

Applicants intend to be fully responsive to the outstanding Office Action. If the Examiner detects any issue which the Examiner believes Applicants have not addressed in this response, Applicants urge the Examiner to contact the undersigned.

Applicants sincerely believe that this patent application is now in condition for allowance and, thus, respectfully request early allowance.

Respectfully submitted,

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